



Clean Michigan Initiative Clean Water Fund Grant

Tracking code: 2001-0074



City of Mount Clemens WWTP

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Illicit Discharge Elimination in the City of Mt. Clemens

January 1, 2002 through December 31, 2004

PROJECT OVERVIEW AND GOALS

The main branch of the Clinton River flows through the heart of Mount Clemens. The City of Mount Clemens (City) has been assisting area schools in monitoring efforts for over ten years. Test results over the years have varied, but many test results have been high in coliform bacteria. When the opportunity to reduce pollutant levels was presented to City officials, they were eager to pursue the project. The goal of the project was to identify and eliminate illicit discharges within the City. Illicit discharges were identified through storm sewer inspections, analytical testing, dye testing, smoke testing, and any other methods that could be employed. Once an illicit discharge was identified, the City required the responsible party to eliminate the discharge.



Grant Amount: \$ 33,100

Match Funds: \$ 11,100

Total Amount: \$ 44,200

Site Description: Storm sewer outlets within the City of Mount Clemens leading to the Clinton River and connecting surface waters.

Project Activities:

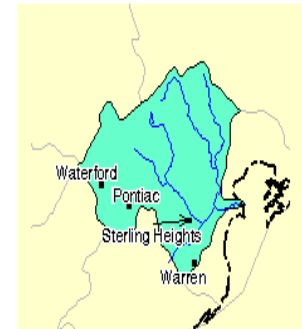
- A Quality Assurance Project Plan (QAPP) was developed. The QAPP was followed to ensure that sampling and testing techniques yielded reliable results.



- All confirmed illicit dischargers were notified of the discharges, and were required to remediate the problems. All corrections were inspected by City staff to verify complete compliance with the Sewer Use Ordinance and Enforcement Response Plan.

Project Activities Concurrent with but outside the scope of the grant:

- City staff responsible for IDEP administration attended IDEP training seminars offered through the Macomb County Health Department (MCHD).
- The City's Sewer Use Ordinance was used to develop an Enforcement Response Plan (ERP). The ERP contained the steps followed once an illicit discharge was identified.



Partners involved:

- Macomb County Health Department
- Macomb County Public Works Office
- Clinton Township
- Clinton River Watershed Council



Project Details:

The City's list of storm sewer outlets (outlets) was developed using existing sewer maps and the knowledge of various City staff. The original list had 43 outlets. One of the listed outlets was determined to be a correctly operating sanitary sewer. One of the listed outlets could not be located. During field surveys eight additional sewers were added to the list as possible outlets. One of the newly added sewers was determined to be a correctly operating sanitary sewer. Another one of the sewer's drainage comes entirely from outside the City and is in under a different jurisdiction. The final list of outlets contained 47 storm sewers, two sanitary sewers, one storm sewer outside of the City's jurisdiction, and one outlet that could not be located.

After initial inspections were done, the outlets were prioritized according to volume of flow, appearance of discharge, and prior known history. Fourteen outlets were tested for chlorine residual, pH, temperature, e-coli bacteria, total phosphorus, total suspended solids, ammonia nitrogen, five-day biochemical oxygen demand, and fluoride. The pollutant levels found were used to further prioritize the outlets. Upstream sampling and testing was done on eight of the 14 outlets. Generally the full spectrum of analyses was done, but on occasion the list of tests was reduced to the most important parameters in order to more effectively cover an area.

A total of 84 upstream samples were taken and tested during the duration of the project. From test results and follow-up inspections, the sources of eleven illicit discharges were confirmed. The City's ERP was used on ten of the discharges and they have been properly corrected. One of the illicit discharges originated in Clinton Township. Clinton Township was made aware of the problem and agreed to handle the correction.

This project was successful and will make future IDEP work a little easier than it would have been starting from scratch. Unsolved sources of pollution will be the City's main priority in future IDEP work. The City will be continuing IDEP efforts under Phase II Storm Water permit requirements.

Annual Load Reductions:

- Six sources of domestic type wastewater were eliminated. These contained excessive e-coli, nutrients, and other pollutants.
- Four sources of non-domestic type wastewater were eliminated. One contained high levels of chlorine. One contained high levels of solids and had a high pH level. Two others contained excessive phosphorus, solids, and other pollutants.
- A quantitative load reduction was not made because actual flow measurements were not included as part of this project.